

Appl. No. 10/526,865
Amendment and/or Response
Reply to Office action of 30 November 2005

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Amendments to the Claims:

A listing of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121. This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended)An active matrix electroluminescent display device comprising an array of display pixels, each pixel comprising: an electroluminescent display element-(2); and active matrix circuitry including a drive transistor-(22) for driving a current through the display element-(2), wherein the drive transistor-(22) and the display element-(2) are connected in series between a power line-(26) for supplying or drawing a controllable current to or from the display element-(2) and a common potential line, and wherein the power line-(26) and the common potential line each comprise a sheet electrode shared between all pixels of the array.
2. (Currently amended)A The device as claimed in of claim 1, ~~comprising~~ including a substrate-(30), the active matrix circuitry overlying the substrate and an electroluminescent layer-(34) overlying the active matrix circuitry.
3. (Currently amended)A The device as claimed in of claim 2, wherein the display is backward emitting through the substrate-(30), and wherein the power line ~~comprises~~ includes a substantially transparent electrically conductive sheet-(42) between the substrate-(30) and the active matrix circuitry.
4. (Currently amended)A The device as claimed in of claim 3, wherein an insulating layer-(44) is provided between the substantially transparent electrically conductive sheet-(42) and the active matrix circuitry, contact portions-(46) being provided through the insulating layer-(44).

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5. (Currently amended) ~~A-The device as claimed in~~ of claim 2, wherein the display is upward emitting away from the substrate.
6. (Currently amended) ~~A-The device as claimed in~~ of claim 5, wherein the power line ~~comprises~~ includes a metal sheet ~~(42)~~ between the substrate ~~(30)~~ and the active matrix circuitry.
7. (Currently amended) ~~A-The device as claimed in~~ of claim 6, ~~further comprising~~ including a second metal layer ~~(50)~~ between the substrate ~~(30)~~ and the active matrix layer, isolated from the first metal sheet layer ~~(42)~~, and wherein the second metal layer is connected to the common potential line ~~(38)~~.
8. (Currently amended) ~~A-The device as claimed in~~ of claim 7, wherein the common potential line ~~comprises~~ includes a substantially transparent electrically conductive layer ~~(38)~~ forming the anodes of the EL electroluminescent display elements, and overlying the electroluminescent layer ~~(34)~~, and wherein the second metal layer ~~(50)~~ contacts the common potential line with contact portions ~~(60)~~ extending through the active matrix circuitry.
9. (Currently amended) ~~A-The device as claimed in~~ of claim 7, wherein the common potential line ~~comprises~~ includes a substantially transparent electrically conductive layer ~~(74)~~ and a metal layer ~~(74)~~ forming the cathodes of the EL electroluminescent display elements, and overlying the electroluminescent layer ~~(34)~~, and wherein the second metal layer ~~(50)~~ contacts the common potential line with contact portions ~~(60)~~ extending through the active matrix circuitry.
10. (Currently amended) ~~A-The device as claimed in~~ of claim 8 or 9, wherein the second metal layer ~~(50)~~ overlies the substrate ~~(30)~~, a first insulator layer ~~(52)~~ overlies the second metal layer, and the metal sheet ~~(42)~~ overlies the first insulator layer ~~(52)~~.

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11. (Currently amended) ~~A. The device as claimed in~~ of claim 10, wherein a second insulating layer ~~(44)~~ is provided between the metal sheet ~~(42)~~ and the active matrix circuitry, contact portions being provided through the second insulating layer ~~(44)~~.

12. (Currently amended) ~~A. The device as claimed in~~ of claim 10 ~~or 11~~, wherein contact portions ~~which~~ that connect the second metal layer ~~(50)~~ to the common potential line ~~(38; 74, 76)~~ extend through openings in the metal sheet ~~(42)~~.

13. (Currently amended) ~~A. The device as claimed in~~ of claim 6, wherein the common potential line ~~comprises~~ includes an ITO layer ~~(38)~~ forming ~~the~~ anodes of the EL electroluminescent display elements, and overlying the electroluminescent layer ~~(34)~~.

14. (Currently amended) ~~A. The device as claimed in~~ of claim 13, wherein an insulating layer ~~(44)~~ is provided between the metal sheet ~~(42)~~ and the active matrix circuitry, contact portions ~~(46)~~ being provided through the insulating layer.

15. (Currently amended) ~~A. The device as claimed in~~ of claim 5, wherein the substrate ~~comprises~~ includes a metal sheet ~~which~~ that forms the power line.

16. (Currently amended) ~~A. The device as claimed in~~ of claim 5, 6, 7 or 9, wherein anodes of the electroluminescent display elements ~~anodes~~ are adjacent the substrate ~~(30)~~ and ~~the~~ light emission is through ~~the~~ cathodes of the electroluminescent display elements.

17. (Currently amended) ~~A. The device as claimed in~~ of claim 16, wherein the cathodes form the common potential line ~~(74, 76)~~.

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18. (Currently amended) ~~A- The device as claimed in~~ of claim 16 ~~or 17~~, wherein the cathode ~~comprises~~ includes a substantially optically transparent conducting layer ~~(74)~~ of a first thickness, and a second layer ~~(76)~~ of a second, smaller thickness, ~~and which comprises~~ that includes a low work function metal.

19. (Currently amended) ~~A- The device as claimed in any preceding claim~~ of claim 1, wherein the active matrix circuitry ~~further comprises~~ includes, for each pixel, an address transistor ~~(46)~~ connected between a data signal line ~~(6)~~ and an input to the pixel.

20. (Currently amended) ~~A- The device as claimed in~~ of claim 19, wherein the active matrix circuitry ~~further comprises~~ includes, for each pixel, a storage capacitor ~~(24)~~ connected between the power line ~~(26)~~ and the a gate of the drive transistor ~~(22)~~.

21. (New) The device of claim 11, wherein contact portions that connect the second metal layer to the common potential line extend through openings in the metal sheet.

22. (New) The device of claim 17, wherein the cathode includes a substantially optically transparent conducting layer of a first thickness, and a second layer of a second smaller thickness that includes a low work function metal.